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**Information furnished in conformity with the Convention
on Registration of Objects Launched into Outer Space****Note verbale dated 17 August 2022 from the Permanent Mission of
Japan to the United Nations (Vienna) addressed to the
Secretary-General**

The Permanent Mission of Japan to the United Nations (Vienna), in accordance with article IV of the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution [3235 \(XXIX\)](#), annex), has the honour to transmit information concerning new and previously registered objects launched into outer space (see annexes I and II).¹

¹ The data on the space objects referenced in the annexes were entered into the Register of Objects Launched into Outer Space on 8 September 2022.



Annex I

Registration data on satellites launched by Japan*

ELSA-d Client

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-022AQ
Name of space object	ELSA-d Client
State of registry	Japan
Other launching States	Kazakhstan, Russian Federation
Date and territory or location of launch	22 March 2021 at 0607 hours 12.83 seconds UTC; Tyuratam (Baikonur Cosmodrome), Kazakhstan
Basic orbital parameters	
Nodal period	95.64 minutes
Inclination	97.55 degrees
Apogee	557 kilometres
Perigee	530 kilometres
General function of space object	The End-of-Life Service by Astroscale (ELSA) programme is a spacecraft retrieval service for satellite operators. ELSA-d (demonstration) is the first mission to demonstrate the core technologies necessary for debris docking and removal ELSA-d consists of two spacecraft: a servicer satellite (~175kg) and a client satellite (~17kg), launched stacked together. The servicer satellite has been developed to safely remove debris objects from orbit, equipped with proximity rendezvous technologies and a magnetic docking mechanism. The client satellite is a piece of replica debris fitted with a ferromagnetic plate that enables docking. This registration is for the client satellite, which was first released on 25 August 2021 for a short period of time from the servicer satellite

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Astroscale Japan, Inc.
Website	https://astroscale.com/elsa-d/

* The information was submitted using the form prepared pursuant to General Assembly resolution 62/101 and has been reformatted by the Secretariat.

Launch vehicle	Soyuz-2.1a launch vehicle with Fregat upper stage (launch of CAS500-1 with smallsats and cubesats)
Other information	This registration is for the client satellite, first released from a servicer on 25 August 2021 at 15:00:50 UTC Basic orbital parameters show the position at the time of the separation from the ELSA-d servicer satellite. The original parameters at launch were nodal period 95.58 minutes, inclination 97.56 degrees, apogee 559 kilometres and perigee 534 kilometres The ELSA-d servicer satellite and ELSA-d client satellite are separately licensed for their mission operations under the Outer Space Act (1986) of the United Kingdom and are controlled in the country under the regulations of the Act

SPATIUM-I

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067PN
Name of space object	SPATIUM-I
State of registry	Japan
Registration document	ST/SG/SER.E/966
Date and territory or location of launch	6 October 2018 UTC; International Space Station (ISS)
Basic orbital parameters	
Nodal period	92.4 minutes
Inclination	51.6 degrees
Apogee	393 kilometres
Perigee	388 kilometres
General function of space object	Demonstration of an on-board chip-scale atomic clock (CSAC) and spread spectrum transmission using CSAC as the clock source Time-synchronization of multiple ground stations Reading of the carrier wave phases of a single satellite
Date of decay/re-entry/deorbit	23 September 2021 UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations

Date when space object is no longer functional 21 September 2021 at 1620 hours UTC

Space object owner or operator Kyushu Institute of Technology, JAPAN

Website www.facebook.com/Space-Precision-Atomic-clock-Timing-Utility-Mission-293774767872332/?modal=admin_todo_tour

Other information Launched by H-IIB rocket on 23 September 2018 and carried by the HTV-7 spacecraft to ISS
Date of launch is the date of deployment from ISS and territory or location of launch is the location of deployment

Uguisu

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator 1998-067QF

Name of space object Uguisu

State of registry Japan

Registration document [ST/SG/SER.E/966](https://www.unoosa.org/pdf/sgsr/sgsr_966.pdf)

Other launching States United States of America

Date and territory or location of launch 17 June 2019 UTC; International Space Station (ISS)

Basic orbital parameters

Nodal period 91.1 minutes

Inclination 51.6 degrees

Apogee 416 kilometres

Perigee 415 kilometres

General function of space object Short message transmission by continuous wave beacon, Earth observation by a camera module, measurement of the geomagnetic field, posture stabilization, on-orbit operation demonstration of LoRa module and on-orbit operation demonstration of a complex programmable logic device

Date of decay/re-entry/deorbit 7 October 2021 UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when space object is no longer functional	6 October 2021 at 0517 hours UTC
Space object owner or operator	Kyushu Institute of Technology, Japan
Website	https://birds3.birds-project.com
Other information	Launched by Antares rocket on 17 April 2019 and carried by the Cygnus NG-11 spacecraft to ISS Date of launch is the date of deployment from ISS and territory or location of launch is the location of deployment

DRUMS

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102G
Name of space object	DRUMS
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	95.85 minutes
Inclination	97.57 degrees
Apogee	573 kilometres
Perigee	547 kilometres
General function of space object	The satellite will demonstrate debris removal technology in orbit by releasing and approaching a small target and performing simulated capture

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Kawasaki Heavy Industries
Launch vehicle	Epsilon Launch Vehicle Flight No.5 (Epsilon-5)
Other information	Launching organization is Japan Aerospace Exploration Agency (JAXA)

Rapid Innovative payload demonstration Satellite-2 (RAISE-2)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102C
Name of space object	Rapid Innovative payload demonstration Satellite-2 (RAISE-2)
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96.0 minutes
Inclination	97.6 degrees
Apogee	561.7 kilometres
Perigee	561.7 kilometres
General function of space object	RAISE-2 is a technology demonstration satellite equipped with six experimental components provided by private companies, universities and research institutions. The technology demonstration aims to acquire various and innovative data in space

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Owner: Japan Aerospace Exploration Agency (JAXA) Operator: Mitsubishi Electric Corporation (MELCO)
Website	www.kenkai.jaxa.jp/kakushin/kakushin02.html
Launch vehicle	Epsilon Launch Vehicle Flight No.5 (Epsilon-5)
Other information	Launching organization is JAXA

Z-Sat

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102E
Name of space object	Z-Sat
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan

Basic orbital parameters	
Nodal period	95.9 minutes
Inclination	97.6 degrees
Apogee	560±20 kilometres
Perigee	560±20 kilometres
General function of space object	Earth observation

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries, Ltd.
Launch vehicle	The fifth Epsilon Launch Vehicle (Epsilon-5)
Other information	Launching organization is JAXA

ASTERISC

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102A
Name of space object	ASTERISC
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96.01 minutes
Inclination	97.57 degrees
Apogee	576 kilometres
Perigee	559 kilometres
General function of space object	The satellite observes cosmic dust and space debris using a film type dust sensor

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Chiba Institute of Technology
Launch vehicle	Epsilon Launch Vehicle Flight No.5
Other information	Launching organization is JAXA.

HIBARI

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102F
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Name of space object	HIBARI
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96 minutes
Inclination	97.6 degrees
Apogee height	571 kilometres
Perigee height	543 kilometres
General function of space object	Technology demonstration: variable shape attitude control, ultraviolet ray camera, star tracker, etc.

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Laboratory for Space Systems, Tokyo Institute of Technology
Website	http://lss.mes.titech.ac.jp/hibari_index
Launch vehicle	Epsilon Launch Vehicle Flight No.5
Other information	Launching organization is JAXA

TeikyoSat-4

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102B
Name of space object	TeikyoSat-4
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	95.98 minutes
Inclination	97.56 degrees
Apogee	574 kilometres
Perigee	558 kilometres
General function of space object	Demonstration of satellite bus system, which can carry out space environment utilization experiments Demonstration of high speed communication using ham radio Demonstration of electrical power system for new technology

Demonstration of de-orbit system after
the end of all missions

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Teikyo University
Website	https://spacesystemsociety.jimdofree.com/projects/teikyosat-project/teikyosat-4-info
Launch vehicle	Epsilon Launch Vehicle Flight No.5
Other information	Launching organization is JAXA

ARICA

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102J
Name of space object	ARICA
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	90 minutes
Inclination	97.60 degrees
Apogee	556.65 kilometres
Perigee	556.65 kilometres
General function of space object	Demonstrate a real-time alert system of transient astrophysical objects using commercial satellite networks

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Aoyama Gakuin University
Launch vehicle	Epsilon Launch Vehicle Flight No.5
Other information	Launching organization is JAXA ARICA was separated from the Innovative Satellite Technology Demonstration-2 mission at 0206 hours 31 seconds UTC on 9 November 2021

KOSEN-1**Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space**

Committee on Space Research international designator	2021-102H
Name of space object	KOSEN-1
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96 minutes
Inclination	97.6 degrees
Apogee	560 kilometres
Perigee	560 kilometres
General function of space object	KOSEN-1 will demonstrate three new spaceborne technologies for the CubeSat system: (a) a performance of a dual reaction wheel; (b) a usage of the Raspberry Pi CM1-based on-board computer; and (c) an expansion of a 6.6 m long dipole antenna Furthermore, KOSEN-1 will observe Jupiter's decametric radio emissions to investigate the beaming characteristics

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	National Institute of Technology, Kochi College
Launch vehicle	Epsilon Launch Vehicle Flight No.5
Other information	Launching organization is JAXA

JCSAT-6**Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space**

Committee on Space Research international designator	1999-006A
Name of space object	JCSAT-6
State of registry	Japan
Registration document	ST/SG/SER.E/371
Other launching States	United States of America
Date and territory or location of launch	16 February 1999 at 0145 hours UTC; Cape Canaveral, Florida, United States of America

Basic orbital parameters	
Nodal period	1,457 minutes
Inclination	5.816 degrees
Apogee	36,306.2 kilometres
Perigee	36,114.7 kilometres
General function of space object	Domestic communications and domestic broadcasting
Date of decay/re-entry/deorbit	29 November 2021 at 1201 hours UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when space object is no longer functional	10 December 2021 at 0147 hours UTC
Date when space object is moved to a disposal orbit	9 December 2021 at 2229 hours UTC
Physical conditions when space object is moved to a disposal orbit	Shutdown of all satellite systems was achieved Propellant depletion was done normally. Battery charge terminate operation were done normally
Basic orbital parameters	
Geostationary position	136 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Atlas IAS
Other information	Launch organization is Lockheed Martin Commercial Launch Services, Inc.

QZS 1R

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-096A
Name of space object	QZS 1R
State of registry	Japan
Date and territory or location of launch	26 October 2021 at 0219 hours 37 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	from 34 to 42 degrees
Apogee	39,050 kilometres
Perigee	32,550 kilometres

General function of space object	The QZS 1R navigation satellite will be a part of the Quasi-zenith Satellite System (QZSS), providing satellite positioning, navigation and timing services. QZS 1R will replace the first satellite (QZS 1) of the QZSS, which has already exceeded its design life. Plans are in place to add three more satellites to the QZSS in 2024
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Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Owner: Cabinet Office of Japan Operator: Quasi-Zenith Satellite System Service, Inc.
Launch vehicle	H-IIA Launch Vehicle Flight No.44
Other information	QZS 1R was launched by Mitsubishi Heavy Industries

G-Satellite2

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067SN
Name of space object	G-Satellite2
State of registry	Japan
Other launching States	United States of America
Date and territory or location of launch	22 June 2021 at 1230 hours 15 seconds UTC; International Space Station (ISS)
Basic orbital parameters	
Nodal period	92.80 minutes
Inclination	51.62 degrees
Apogee	414 kilometres
Perigee	409 kilometres
General function of space object	Deployment of figurines and message display Take pictures of figurines, space, Earth and cheerful messages

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	University of Tokyo
Launch vehicle	Falcon 9
Other information	The satellite was launched by Falcon 9 on 4 June 2021 UTC and then carried to ISS by Dragon (SpX-22)

Date of launch is the date of deployment
from ISS and territory or location of
launch is the location of deployment

JCSAT-12

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2009-044A
Name of space object	JCSAT-12
State of registry	Japan
Registration document	ST/SG/SER.E/600
Other launching States	France
Date and territory or location of launch	21 August 2009 at 2209 hours UTC; Kourou, French Guiana
Basic orbital parameters	
Nodal period	1,436 minutes
Inclination	0.03 degrees
Apogee	35,799.5 kilometres
Perigee	35,791.8 kilometres
General function of space object	Satellite telecommunications and broadcasting

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Basic orbital parameters	
Geostationary position	132 degrees East
Space object owner or operator	SKY Perfect JSAT Corporation
Launch vehicle	Ariane 5 ECA
Other information	Launching organization is Arianespace

StriX-β

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2022-020A
Name of space object	StriX-β
State of registry	Japan
Other launching States	New Zealand, United States of America
Date and territory or location of launch	28 February 2022 at 2037 hours 24 seconds; Mahia Peninsula, New Zealand
Basic orbital parameters	

Nodal period	96 minutes
Inclination	97.631 degrees
Apogee	561 kilometres
Perigee	561 kilometres
General function of space object	StriX-β is the second synthetic aperture radar (SAR) satellite made by Synspective, Inc. to test capability of the SAR imagery (remote sensing) technology, including the uplink and downlink functionality and antenna signal strength

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Synspective, Inc.
Website	https://synspective.com
Launch vehicle	Electron #24
Other information	Launched by Rocket Lab on 28 February 2022

IHI-SAT

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067TJ
Name of space object	IHI-SAT
State of registry	Japan
Date and territory or location of launch	24 March 2022 at 0900 hours 0 seconds UTC; International Space Station (ISS)
Basic orbital parameters	
Nodal period	92.8 minutes
Inclination	51.64 degrees
Apogee	429.8 kilometres
Perigee	418.8 kilometres
General function of space object	IHI-SAT is equipped with an ultra-high-frequency (UHF) receiver for uplink, a super high frequency (SHF) transmitter for downlink and an automatic identification system (AIS) receiver for mission

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	IHI Corporation
Other information	Launched on 19 February 2022 UTC by Antares and carried to ISS by NG-17

KITSUNE

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067TK
Name of space object	KITSUNE
State of registry	Japan
Date and territory or location of launch	24 March 2022 at 1150 hours UTC; International Space Station (ISS)
Basic orbital parameters	
Nodal period	92.9 minutes
Inclination	51.6 degrees
Apogee	421 kilometres
Perigee	425 kilometres
General function of space object	1. Earth observation with 5-metre class resolution colour images 2. Total electron content measurements in the ionosphere 3. Store-and-forward of remote sensor data from ground terminals to ground station 4. Demonstration of a C-band communication system

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Kyushu Institute of Technology, Japan
Website	https://kitsat.net/kitsune
Other information	Launched by Antares rocket on 20 February 2022 and carried by the Cygnus NG-17 spacecraft to ISS Date of launch is the date of deployment from ISS and territory or location of launch is the location of deployment

AOBA VELOX-IV

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2019-003J
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Name of space object	AOBA VELOX-IV
State of registry	Japan
Date and territory or location of launch	18 January 2019 at 0050 hours 20 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	94.6 minutes
Inclination	97.2 degrees
Apogee	507.7 kilometres
Perigee	488.8 kilometres
General function of space object	The main objective of this mission is a technological demonstration of the capturing of Earth glow images in low Earth orbit using a low-light camera and pulsed plasma thruster with a view to observing the lunar horizon glow during a future moon mission
Additional voluntary information for use in the Register of Objects Launched into Outer Space	
Space object owner or operator	Kyushu Institute of Technology, Japan
Website	https://kitsat.net/av4
Launch vehicle	Epsilon Launch Vehicle Flight No.4 (Epsilon-4)
Other information	Launching organization is JAXA

OPUSAT-II

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067SG
Name of space object	OPUSAT-II
State of registry	Japan
Registration document	ST/SG/SER.E/1011
Other launching States	United States of America
Date and territory or location of launch	14 March 2021 at 1120 hours 10 seconds UTC; International Space Station (ISS)
Basic orbital parameters	
Nodal period	92.90 minutes
Inclination	51.64 degrees
Apogee	419 kilometres
Perigee	414 kilometres

General function of space object	The general functions of the space object are attitude control, communication and deployment
Date of decay/re-entry/deorbit	15 April 2022 at 0000 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Osaka Prefecture University Small Spacecraft System Research Center
Website	www.ssrc.aero.osakafu-u.ac.jp/activity/opusat-ii-project
Other information	The space object was launched on 20 February 2021 UTC by Antares and transported to ISS by Cygnus Date of launch is the date of deployment from ISS and territory or location of launch is the location of deployment

WARP-01

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067SA
Name of space object	WARP-01
State of registry	Japan
Other launching States	United States of America
Date and territory or location of launch	14 March 2021 at 1150 hours 0 seconds UTC; International Space Station (ISS)
Basic orbital parameters	
Nodal period	92.8 minutes
Inclination	51.6 degrees
Apogee	425.0 kilometres
Perigee	417.5 kilometres
General function of space object	To demonstrate new satellite bus components To carry wedding memorial plates into space To gather images of the Earth and space To survey the radiation environment in space To survey the radio environment in space
Date of decay/re-entry/deorbit	1 May 2022 at 0325 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations

Date when space object is no longer functional	29 April 2022 at 2141 hours 2 seconds UTC
Physical conditions when space object is moved to a disposal orbit	Non-active WARP-01 was re-entered and burned up in atmosphere
Space object owner or operator	WARPSPACE Inc., University of Tsukuba
Website	https://warpspace.jp
Launch vehicle	Antares 230+
Other information	WARP-01 was launched on 20 February 2021 UTC by the Antares 230+ rocket and carried to ISS by Cygnus (enhanced) CRS NG-15 Date of launch is the date of deployment from ISS and territory or location of launch is the location of deployment

OrigamiSat-1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2019-003B
Name of space object	OrigamiSat-1
State of registry	Japan
Date and territory or location of launch	18 January 2019 at 0050 hours 20 seconds UTC; Uchinoura Space Center, Kagoshima Prefecture, Japan
Basic orbital parameters	
Nodal period	94 minutes
Inclination	97.4 degrees
Apogee	529 kilometres
Perigee	492 kilometres
General function of space object	OrigamiSat-1 is a Japanese 3U CubeSat for demonstrating high-speed amateur radio communication and deployable membrane structure technology. At the end of membrane deploy mission, the membrane will be separated from the satellite
Date of decay/re-entry/deorbit	30 April 2022 UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Tokyo Institute of Technology, Japan
Launch vehicle	Epsilon Launch Vehicle Flight No. 4 (Epsilon-4)

AQT-D

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067QW
Name of space object	AQT-D
State of registry	Japan
Registration document	ST/SG/SER.E/1011
Date and territory or location of launch	20 November 2019 UTC; International Space Station (ISS)
Basic orbital parameters	
Nodal period	88.0 minutes
Inclination	51.6 degrees
Apogee	181.4 kilometres
Perigee	171.2 kilometres
General function of space object	AQT-D is 3U-size Cubesat. AQT-D has a water-based propulsion system, visible light camera and store-and-forward device
Date of decay/re-entry/deorbit	21 April 2022 at 0000 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Change of status in operations	
Date when space object is no longer functional	21 April 2022 at 0000 hours 0 seconds UTC
Space object owner or operator	University of Tokyo
Launch vehicle	H-II B No.8
Other information	Launched by HTV8 (H-II B No.8) on 25 September 2019 and transported to ISS Launching organizations are Mitsubishi Heavy Industries, Ltd. and the Japan Aerospace Exploration Agency (JAXA) The date of launch is the date of deployment from ISS and the territory or location of launch is the location of deployment

Annex II

Registration data on launch vehicles launched by Japan*

H-IIA Launch Vehicle Flight No. 43 Upper Stage

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2020-089B
Name of space object	H-IIA Launch Vehicle Flight No. 43 Upper Stage
State of registry	Japan
Registration document	ST/SG/SER.E/1011
Date and territory or location of launch	29 November 2020 UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	621 minutes
Inclination	28.5 degrees
Apogee	35,262 kilometres
Perigee	200 kilometres
General function of space object	Space object is the spent upper stage of H-II A Launch Vehicle Flight No.43.
Date of decay/re-entry/deorbit	12 June 2021 UTC

H-IIA Launch Vehicle Flight No.44

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-096B
Name of space object	H-IIA Launch Vehicle Flight No.44
State of registry	Japan
Date and territory or location of launch	26 October 2021 at 0219 hours 37 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	627 minutes
Inclination	31.88 degrees
Apogee	35,558 kilometres
Perigee	196 kilometres

* The information was submitted using the form prepared pursuant to General Assembly resolution [62/101](#) and has been reformatted by the Secretariat.

General function of space object	H-IIA Launch Vehicle Flight No.44 was used to launch the QZS-1R Japanese positioning satellite into orbit around the Earth
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Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries, Ltd.
Launch vehicle	H-IIA Launch Vehicle Flight No.44
Other information	Launch organization is Mitsubishi Heavy Industries, Ltd.

Epsilon Launch Vehicle Flight No.5 Rocket Body (Post-Boost Stage)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102K
Name of space object	Epsilon Launch Vehicle Flight No.5 Rocket Body (Post-Boost Stage)
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	96 minutes
Inclination	97.61 degrees
Apogee	571 kilometres
Perigee	547 kilometres
General function of space object	This space object is the spent rocket body of the Epsilon Launch Vehicle Flight No.5. The parts of the launch vehicle which were put into orbit consist of a third stage and a Post-Boost Stage. This object is related to the Post-Boost Stage

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Japan Aerospace Exploration Agency (JAXA)
Launch vehicle	Epsilon Launch Vehicle Flight No.5
Other information	Launching organization is JAXA. The Post-Boost Stage is designed to release stored pressure upon passivation, and the object is estimated to decay within 25 years

Basic orbital parameters were acquired just prior to communication loss with the Post-Boost Stage

H-IIA Launch Vehicle Flight No.45

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-128B
Name of space object	H-IIA Launch Vehicle Flight No.45
State of registry	Japan
Date and territory or location of launch	22 December 2021 at 1532 hours 0 seconds UTC; Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period	1,234 minutes
Inclination	30.01 degrees
Apogee	63,276 kilometres
Perigee	189 kilometres
General function of space object	H-IIA Launch Vehicle Flight No.45 was used to launch United Kingdom of Great Britain and Northern Ireland communication satellite Inmarsat-6 F1 into orbit around the Earth
Date of decay/re-entry/deorbit	9 February 2022 at 2320 hours 0 seconds UTC

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Mitsubishi Heavy Industries, Ltd.
Launch vehicle	H-IIA Launch Vehicle Flight No.45
Other information	Launch organization is Mitsubishi Heavy Industries, Ltd.

Epsilon Launch Vehicle Flight No.5 Rocket Body (third stage)

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2021-102L
Name of space object	Epsilon Launch Vehicle Flight No.5 Rocket Body (third stage)
State of registry	Japan
Date and territory or location of launch	9 November 2021 at 0055 hours 16 seconds UTC; Uchinoura Space Center, Kagoshima, Japan

Basic orbital parameters	
Nodal period	92 minutes
Inclination	97.70 degrees
Apogee	564 kilometres
Perigee	222 kilometres
General function of space object	This space object is the spent rocket body of the Epsilon Launch Vehicle Flight No.5. The parts of the launch vehicle which were put into orbit consist of a third stage and a Post-Boost Stage. This object is related to the third stage
Date of decay/re-entry/deorbit	20 January 2022 UTC
Additional voluntary information for use in the Register of Objects Launched into Outer Space	
Space object owner or operator	Japan Aerospace Exploration Agency (JAXA)
Launch vehicle	Epsilon Launch Vehicle Flight No.5.
Other information	Launching Organization is JAXA. The rocket body (third stage) has no stored energy at the end of combustion (solid rocket motor) and is estimated to decay within 25 years Basic orbital parameters were as at third stage separation from the Epsilon Launch Vehicle Flight No.5